

Roll No. ....

**67103-N**

**MCA 3rd Semester (MCA 2 Year  
Programme) w.e.f. 2021-22  
Examination – July, 2022**

**ANDROID MOBILE APPLICATION DEVELOPMENT**

**Paper : 21MCA23C3**

**Time : Three hours ] [ Maximum Marks : 80**

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt five questions in all, selecting one question from each Units. Question No. 1 is compulsory. All questions carry equal marks.

1. (a) What are Plug-ins ? 2 × 8 = 16  
(b) What is DDLs ?  
(c) What is JDK ?  
(d) What is ADK ?  
(e) What is Service ?  
(f) What is View ?  
(g) What is Bluetooth ?  
(h) What is Near Field Communication ?

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### UNIT - I

2. (a) What is the history of Android ? Explain the version of Android with an example. 8
- (b) What are Applications of Mobile ? Explain. 4
- (c) What is Memory ? How to Avoid memory leaks ? Explain with example. 4
3. Explain the following with example : 6 + 5 + 5
- (a) Mobile Software Engineering
- (b) Mobile Devices Profile
- (c) Managing Resources

### UNIT - II

4. (a) What is Android Architecture ? Explain the parts of Architecture with their functions. 8
- (b) What is Fragment ? How is Fragment used for navigation ? Explain with example. 8
5. Explain the following with example : 6 + 5 + 5
- (a) Activity
- (b) MVC Architecture
- (c) Widgets

### UNIT - III

6. What is a User Interface ? What are UI controls used to build the hierarchy of layout and Widgets ? Explain with example. 16
7. What do you mean by Location and Mapping ? Explain location-based services, Google Maps Activity with example. 16

### UNIT - IV

8. What is meant by GPS and Wi-Fi Integrated in Apps ? Explain Audio Manager and Android Notification with examples. 16
9. Explain the following with example : 6 + 5 + 5
- (a) Publishing Android Application
- (b) Flutter
- (c) API Key
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